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Mazlin B. Ghazali

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Law Offices Of James C Wray  
Suite 300  
1493 Chain Bridge Road  
McLean, VA 22101

EXAMINER
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MCDOWELL, JR, MAURICE L

ART UNIT	PAPER NUMBER
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2628

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09/28/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,169	<b>Applicant(s)</b> GHAZALI, MAZLIN B.	
	<b>Examiner</b> MAURICE MCDOWELL, JR	<b>Art Unit</b> 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 6/29/2010 have been fully considered but they are not persuasive.
2. Applicant argues: The method of the present invention involves industrial applicability and is not merely a mental act with no substantive outcome. Rather, the present invention defines a method for subdivision for a plot of land including forming an optimized sub-division of the plot of land by performing mathematical calculations to tessellate polygonal tile shapes over the area to be subdivided and thus results in a physical transformation of matter... It is respectfully submitted that the mere fact that claims 1-22 do not include a computer processor limitation should not alone preclude the claims from consideration. Whilst it could be argued that claims 1-22 include within their scope the possibility of manual performance of the method, this is considered impossible in practice as the aspects of "forming... a layout of a basic precinct unit" is not addressed in such an argument nor is the tessellation of the basic tile shapes to achieve a functional interrelationship addressed. The mere fact that claim 1 could include a nonsensical possibility should not of itself consign the claim to a category of a "mere scheme, rule or method of doing business performing purely mental acts ...." when clearly the claim includes a novel combination of method steps. Therefore, the nonsensical construction should be disregarded. While it may be a simple manual task to tessellate polygonal tile shapes, it is by no means a simple manual/mental task to first form the layout on the basic tile shapes and then tessellate those tile shapes to achieve the required functionality.

The method of the present invention gives rise to an altered state of affairs and a variety of

Art Unit: 2628

economic beneficiaries such as the architect, the land developer, local government authorities, and land owners who all benefit from the efficiencies and practical benefits afforded by file invention.

The Examiner Would no doubt be aware of the recent decision by the U.S Supreme Court in *Bilski v Kappos* (US., No. 08-964, 6/28/10), in which it was established that the "machine-or-transformation" test is not the sole test for determining patentability. The present invention does not fall within the realm of unpatentable "abstract ideas". Rather, the present invention defines a method which includes tangible elements which result in a physical transformation of matter. For the above reasons, withdrawal of the 35 U.S.C. 101 rejection of claims 1-22 is respectfully requested.

3. Examiner respectfully disagrees: The examiner is not arguing that the instant invention is unpatentable because it is an abstract idea, instead claims 1-22 were rejected as being method claims that don't have any steps that are tied to an apparatus. The examiner suggests adding the words "with a processor" before the most significant step of claim 1; for example "with a processor: forming an optimized sub-division of said plot of land by tessellating said polygonal basic tile shapes over an area to be sub-divided..."; the examiner notes that support is found in the spec. page 12 lines 14-25 thru page 13 lines 1-6 (...inputting into a processing device dimensional, boundary and topographical contour data of a plot of land to be sub-divided...computing a tessellation of said polygonal basic tile shapes over a computer surface of said plot of land within a predetermined dimensional ratio whereby respective said at least one access way...).

Art Unit: 2628

4. Applicant argues: The Applicant respectfully submits that the present invention as claimed is distinctly different from the invention taught by Showen. The prior art does not disclose, teach or suggest a method for sub-division of a plot of land comprising the step of computing a tessellation of polygonal basic tile shapes over an area to be subdivided such that "...each said basic precinct unit, together with an adjacent basic precinct unit forms an inter-tile unit of predetermined shape from two or more adjacent occupiable spaces, wherein the inter-tile unit links adjacent basic precinct units, as required by independent claim 23. Rather, the attached style of construction disclosed in Showen is formed from adjacent sub-tile shapes. The circular configuration of the basic tile shape of Showen does not enable an inter-tile unit to be formed from adjacent basic precinct units to maximise the amount of occupiable space with a subdivision. Thus, the present invention provides a method of subdivision which addresses the problems of the prior art recited in the background of the specification of the present application that arise with limited amounts of available land. These problems are not considered by Showen.

5. Examiner respectfully disagrees: The circular configuration of the basic tile shape of Showen does enable an inter-tile unit to be formed from adjacent basic precinct units to maximise the amount of occupiable space with a subdivision, (see fig. 1 and [0034]) (...that the same -sized development circle for four detached single-family homes would accommodate eight, or in some cases even sixteen, multiple-family attached homes); thus Showen is concerned with maximizing the amount of occupiable space with a subdivision.

6. Applicant argues: Adams does not teach or suggest "each said basic precinct unit, together with an adjacent basic precinct unit forming an inter-tile unit of predetermined shape from two or more adjacent occupiable spaces, said inter-tile unit linking adjacent basic precinct

Art Unit: 2628

units to form a commercial or residential sub-division". Rather, each basic precinct unit in Adams is separated from an adjacent unit by a circular roadway instead of being linked to form an inter-tile unit, as required by claim 1.

7. Examiner respectfully disagrees: Each basic precinct unit in Adams is linked to form an inter-tile unit, as required by claim 1, (see fig. 1, 28 and col. 3 lines 7-10) (The segment area 28 has housing units on upper and lower edges (basic precinct units) and these are not separated by a circular roadway).

8. Applicant argues: In the event that a person of ordinary skill in the art combined Adams and Flanders, they would not arrive at the method for sub-division of a plot of land claimed in claims 1-22. These claims would not therefore have been obvious to a person of ordinary skill in the art. The prior art does not seek to address the problem solved by the present invention as discussed in the background of the specification of the present application. Therefore, it would not be obvious to a person of ordinary skill in the art to derive the present invention from the teachings of Adams and Flanders.

9. Examiner respectfully disagrees: In the event that a person of ordinary skill in the art combined Adams and Flanders, they would arrive at the method for sub-division of a plot of land claimed in claims 1-22, because Adams like the instant application uses segment areas (see Adams fig. 1, 28) (with upper and lower rows of housing units (basic precinct units)) what the instant calls inter-tile units. These claims would therefore have been obvious to a person of ordinary skill in the art.

***Specification***

10. Claim 22 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 22 is directed to a land sub-division whenever effected according to claim 1, wherein said polygonal basic tile shapes are tessellated over a subdivided area whereby respective said at least one access way of each basic precinct unit connects with an access way of an adjacent basic precinct unit to form a network of connecting access ways, each said basic, precinct unit, together with an adjacent basic precinct unit forming an inter-tile unit of predetermined shape from two or more adjacent occupiable spaces said inter-tile unit linking adjacent basic precinct units over the subdivided area; which is the same as the second limitation of claim 1 except that the last words of the last sentence of claim 1 ends with “said inter-tile unit linking adjacent basic precinct units to form a commercial or resident sub-division” and the last words of the last sentence of claim 22 ends with “said inter-tile unit linking adjacent basic precinct units over the subdivided area.”

***Claim Rejections - 35 USC § 101***

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 1-22 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed,

Art Unit: 2628

a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example in claim 1, the step of forming on a polygonal basic tile shape a layout of a basic precinct unit comprising an array of occupiable spaces of predetermined shape, at least one access way communicating with each occupiable space could be performed as a mental step or by a person using paper and pencil, similar arguments could be made for the remaining steps of claim 1, and the steps of claims 2-22; thus the steps of claims 1-22 are not inherently performed by an apparatus. The examiner suggests adding with a processor: before the most significant step of claim 1; for example in claim 1, “with a processor: forming on a polygonal basic tile shape a layout of a basic precinct unit comprising an array of occupiable spaces of predetermined shape, at least one access way communicating with each occupiable space” would remove all of the 101 rejection of claims 1-22; there would be no need of amending claims 2-22 because claim 1 would then be statutory under 101 and thus claims 2-22 would also be statutory under 101 because of their dependency on claim 1.

### ***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.



Art Unit: 2628

14. Claims 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Showen Pub.

No.: US 2002/0108346 A1.

15. Regarding claim 23, Showen teaches: A method for sub-division of a plot of land, said method characterized by the steps of:

inputting into a processing device dimensional, boundary and topographical contour data of a plot of land to be sub-divided (fig. 1 see also [0020] and [0043]); selecting from a data storage means associated with said processing device at least one polygonal basic tile shape (fig. 1 see also [0027] and [0043]); forming on said polygonal basic tile shape a layout of a basic precinct unit comprising an array of occupiable spaces selected from a stored range of predetermined shapes and at least one access way communicating with each occupiable space (fig. 1 see also [0029]); computing a tessellation of said polygonal basic tile shapes over a computed surface of said plot of land within a predetermined dimensional ratio whereby respective said at least one access way of each basic precinct unit connects with an access way of an adjacent basic precinct unit to form a network of connecting access ways over said computed surface of said plot of land to be sub-divided, each said basic precinct unit, together with an adjacent basic precinct unit, forming an inter- tile unit of predetermined shape from two or more adjacent occupiable spaces, said inter-tile unit linking adjacent basic precinct units (fig. 1 see also [0027]); and, outputting to a display device a computed sub-divisional plan for said plot of land (fig. 1 see also [0043]).

Art Unit: 2628

16. Regarding claim 24, Showen teaches: A method wherein said basic polygonal tile shape is formed from two or more polygonal sub-tile shapes of predetermined configuration (fig. 3 see also [0044]).

17. Regarding claim 25, Showen teaches: A method wherein a plurality of basic polygonal tile shapes may be combined to form a polygonal super-tile shape of predetermined configuration (fig. 1 see also [0020]).

18. Regarding claim 26, Showen teaches: A method wherein polygonal inter-tile shapes, polygonal sub-tile shapes and/or polygonal super-tile shapes are tessellated alone or in any combination thereof to form a computed sub-divisional plan for said plot of land (figs. 1-3 see also [0020]-[0022]).

19. Regarding claim 27, Showen teaches: A method wherein tessellated sub-tile, basic tile, super-tile and inter-tile units or any combination thereof are applied to a computed sub-divisional plan of a plot of land in a best fit adaptation to accommodate predetermined land boundary and/or land contour variations (fig. 2 see also [0046]).

20. Regarding claim 28, Showen teaches: A method wherein computed artefacts absent from said basic precinct units are incorporated into said computer subdivisional plan of said plot of land without substantial distortion to said network of connecting access ways [0048].

### ***Claim Rejections - 35 USC § 103***

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 2628

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flanders Patent No.: US 6,688,052 B1 in view of Adams Patent No.: 4,679,363.

23. Regarding claim 1, Flanders teaches: A method for sub-division of a plot of land, said method comprising the steps of:-

forming on a polygonal basic tile shape a layout of a basic precinct unit comprising an array of occupiable spaces of predetermined shape, at least one access way communicating with each occupiable space; said occupiable spaces each having respective right of occupancy (fig. 1 see also col. 9 lines 14-25).

24. Flanders doesn't teach: forming an optimized sub-division of said plot of land by tessellating two or more said polygonal basic tile shapes over an area to be sub-divided whereby respective said at least one access way of each basic precinct unit connects with an access way of an adjacent basic precinct unit to form a network of connecting access ways, each said basic precinct unit, together with an adjacent basic precinct unit forming an inter-tile unit of predetermined shape from two or more adjacent occupiable spaces, said inter-tile unit linking adjacent basic precinct units to form a commercial or resident sub-division.

25. The analogous prior art Adams teaches: forming an optimized sub-division of said plot of land by tessellating two or more said polygonal basic tile shapes over an area to be sub-divided whereby respective said at least one access way of each basic precinct unit connects with an access way of an adjacent basic precinct unit to form a network of connecting access ways, each

Art Unit: 2628

said basic precinct unit, together with an adjacent basic precinct unit forming an inter-tile unit of predetermined shape from two or more adjacent occupiable spaces, said inter-tile unit linking adjacent basic precinct units to form a commercial or resident sub-division (fig. 3, 20' see also col. 3 lines 6-10) for the benefit of providing a land arrangement which preserves the environment and provides for large amounts of green space.

26. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine forming an optimized sub-division of said plot of land by tessellating two or more said polygonal basic tile shapes over an area to be sub-divided whereby respective said at least one access way of each basic precinct unit connects with an access way of an adjacent basic precinct unit to form a network of connecting access ways, each said basic precinct unit, together with an adjacent basic precinct unit forming an inter-tile unit of predetermined shape from two or more adjacent occupiable spaces, said inter-tile unit linking adjacent basic precinct units to form a commercial or resident sub-division as shown in Adams with Flanders for the benefit of providing a land arrangement which preserves the environment and provides for large amounts of green space.

27. Regarding claim 2, Adams further teaches: A method wherein said polygonal basic tile shape comprises a plurality of polygonal sub-tiles of predetermined shape (fig. 1) (subslices).

28. Regarding claim 3, Adams further teaches: A method wherein each said polygonal sub-tile comprises a layout including at least portion of an occupiable space and at least portion of an access way (fig. 1, 26 and 56 and 54 see also col. 3 lines 1-2).

29. Regarding claim 4, Adams further teaches: A method wherein each said polygonal sub-tile further comprises at least portion of a common space (fig. 1, 52).

Art Unit: 2628

30. Regarding claim 5, Adams further teaches: A method wherein said sub-tiles comprises part or all of one or more occupiable spaces (fig. 1, 54 and 56).
31. Regarding claim 6, Adams further teaches: A method wherein each said sub-tile shape is identical (fig. 1).
32. Regarding claim 7, Adams further teaches: A method wherein said sub-tiles each comprise an array of discrete occupiable spaces and at least one access way (fig. 1, 54 and 26).
33. Regarding claim 8, Adams further teaches: A method wherein said sub-tiles further comprise at least one common space region (fig. 1, 52).
34. Regarding claim 9, Adams further teaches: A method wherein said sub-tiles have the same or differing shapes (fig. 1).
35. Regarding claim 10, Adams further teaches: A method wherein said basic tile shapes are tessellated to form a super-tile shape containing provision for public amenities (fig. 6, 154).
36. Regarding claim 11, Adams further teaches: A method wherein said super-tile is tessellated with basic tile shapes of the same or differing shapes (fig. 6).
37. Regarding claim 12, Adams further teaches: A method wherein said adjacent occupiable spaces each include a building structure whereby adjacent building structures have at least one common wall structure (fig. 4, 77 and 78 see also col. 3 lines 26-27).
38. Regarding claim 13, Adams further teaches: A method wherein said building structures are selected from duplex, triplex, quadriplex, pentaplex, sextuplex or octaplex structures or any combination thereof (fig. 4, 77 and 78).
39. Regarding claim 14, Adams further teaches: A method wherein said occupiable spaces comprise housing lots (fig. 4, 77 and 78).

Art Unit: 2628

40. Regarding claim 15, Adams further teaches: A method wherein said basic precinct unit comprises a basic neighbourhood unit (fig. 4, 68).

41. Regarding claim 16, Adams further teaches: A method wherein said occupiable spaces comprise building floor plan layouts (fig. 4, 78).

42. Regarding claim 17, Adams further teaches: A method wherein said access way comprises a roadway (fig. 3, 64).

43. Regarding claim 18, Adams further teaches: A method wherein said access way comprises pedestrian access ways (fig. 3, 30').

44. Regarding claim 19, Adams further teaches: A method wherein said common space includes roadways and/or pedestrian access ways (fig. 1, 26).

45. Regarding claim 20, Adams further teaches: A method wherein said common space includes communal spaces (fig. 1, 26).

46. Regarding claim 21, Adams further teaches: A method whereby subdivisions so formed include a building structure for an occupiable space selected from a duplex, triplex, quadriplex, pentaplex, sextuplex or octaplex configuration wherein dwelling units are separated from adjacent dwelling units by at least one common wall (fig. 4, 77 and 78).

47. Regarding claim 22, Adams further teaches: A land sub-division whenever effected wherein said polygonal basic tile shapes are tessellated over a subdivided area whereby respective said at least one access way of each basic precinct unit connects with an access way of an adjacent basic precinct unit to form a network of connecting access ways, each said basic, precinct unit, together with an adjacent basic precinct unit forming an inter-tile unit of

Art Unit: 2628

predetermined shape from two or more adjacent occupiable spaces said inter-tile unit linking adjacent basic precinct units over the subdivided area (fig. 3, 20' see also col. 3 lines 6-10).

***Conclusion***

48. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAURICE MCDOWELL, JR whose telephone number is (571)270-3707. The examiner can normally be reached on Mon-Friday 7:30am - 5:00pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on 571--272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2628

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MM

/XIAO M. WU/

Supervisory Patent Examiner, Art Unit 2628